

Claims

- [c1] 1. A method used in a computer, comprising:
providing a logical theory (12, 30) having clauses;
generating a rule (14) that is a resolvent of clauses in the logical theory;
retrieving an example (16);
generating a proof tree (18, 40) from the example (16) using the logical theory (12, 30);
transforming the proof tree (18, 40) into a database (20, 42) of a coverage check apparatus (28);
converting the rule (14) into a partial proof tree (60) having nodes (62, 54, 66);
transforming the partial proof tree into a database query (22) of the coverage check apparatus (28); and
executing the query (22, 72) to identify tuples in the database (20, 42) that correspond to the nodes of the partial proof tree.
- [c2] 2. The method according to claim 1 wherein the method further comprises determining whether the partial proof tree (60) is identical to a portion of the proof tree (18, 40).
- [c3] 3. The method according to claim 1 wherein the method

further comprises investigating for each rule (14) and each example (16) whether the rule (14) covers the example (16).

- [c4] 4. The method according to claim 3 wherein the method further comprises investigating whether a condition part of the rule (14) is satisfied by the example (16).
- [c5] 5. The method according to claim 1 wherein the method further comprises making the partial proof tree (60) more limiting than the logical theory (12, 30).
- [c6] 6. The method according to claim 1 wherein the method further comprises concluding that the rule does not cover the example when no match is found in database tables.
- [c7] 7. The method according to claim 6 wherein the method further comprises concluding that the rule does cover the example when a match is found in database tables.
- [c8] 8. The method according to claim 1 wherein the method further comprises determining whether the tuples found in the database are associated with the same example.
- [c9] 9. The method according to claim 1 wherein the method further comprises using the logical theory (12, 30) to describe all possible rules that may be created.

[c10] 10. The method according to claim 1 wherein the method further comprises the query checker (24) checking whether or not the query (22) gives an empty result.